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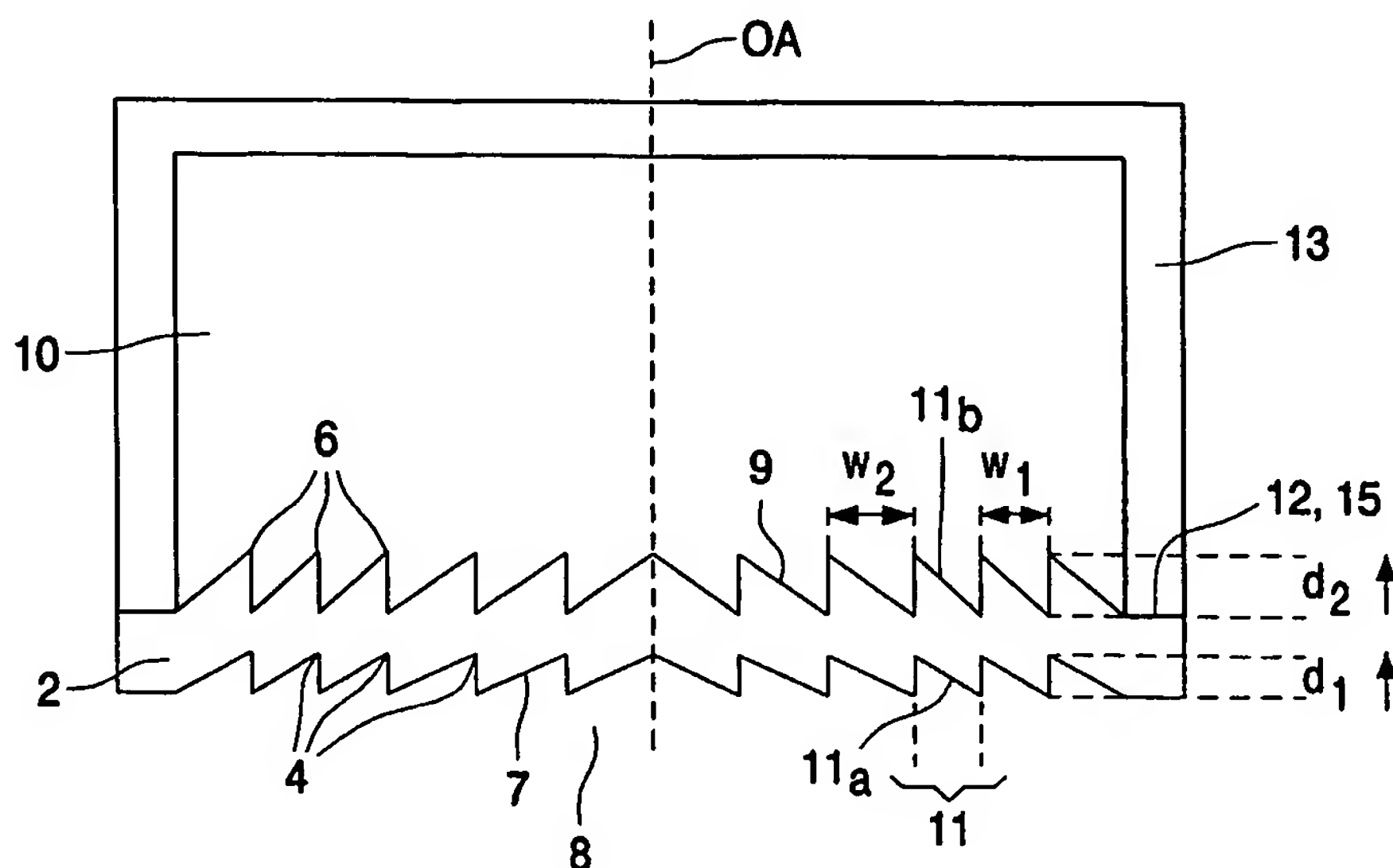
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(54) Title: **DIFFRACTIVE OPTICAL STRUCTURE WITH A LIQUID INTERFACE**



(57) Abstract: An optical system comprising a diffraction element (2) formed of a substantially rigid first material having a first refractive index. The diffraction element has a first plurality of grooves (4) at a first interface of the diffraction element with a second material (8) having a second refractive index; and a second, different, plurality of grooves (6) at a second, different, interface of the diffraction element with a third material (10) having a third refractive index. The first and second pluralities of grooves (4), (6) are aligned with respect to each other such that a combined diffractive effect is achieved. Moreover, the third material (10) is a liquid. The diffractive element may be manufactured using an injection moulding technique, following which the second and/or third materials may be applied in fluid form. By use of the invention, the two pluralities of grooves may be aligned with respect to each other with a high degree of efficiency and reliability



**Declaration under Rule 4.17:**

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